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26646 7590 04/23/2007 KENYON & KENYON LLP ONE BROADWAY NEW YORK, NY 10004			EXAMINER BATES, KEVIN T	
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**Technology Center 2100**

**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 09/913,484  
Filing Date: November 20, 2001  
Appellant(s): VOLLMER ET AL.

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Gerard A. Messina  
Reg. No. 35,952  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed January 4, 2007 appealing from the Office action mailed April 24, 2006.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

6721334

Ketcham

4-2004

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

**Claims 13 – 25 are rejected under 35 U.S.C. 102(e) as being anticipated by Ketcham (6721334).**

Regarding claim 13, Ketcham teaches a method of effective utilization of data packets of differing capacity, comprising:

exchanging user data packets and control data packets (Figure 1, element 124) between a master station and subscribers, the user data packets having a data capacity which is a multiple of a data capacity of the control data packets (Column 2, lines 62 – 67, where there are packets and they can be multiply fit into a maximum packet size; Column 10, lines 1 – 4, an Nth multiple);

filling at least some containers for the user data packets each with a plurality of control data packets in a transmission frame (Column 2, lines 61 – 67) according to an agreement between the master station and at least one of the subscribers (Column 3, lines 14 – 21), the agreement stipulating which of the containers for the user data packets are filled with control data packets, the control data packets which are stored in the containers for the user data packets being combined in a sub-frame, an external format of the sub-frame being adapted to a format of the user data packets (Column 3, lines 1 – 6); and

transferring the user data packets and the control data packets between the master station and the subscribers in a communications system having frame-oriented transmission (Column 7, lines 53 – 61).

**Regarding claim 14**, Ketcham teaches the method according to claim 13, further comprising: announcing the agreement by transmitting an announcement in a control data packet in advance of transferring the containers for the user data packets filled with control data packets (Column 3, lines 14 – 21).

**Regarding claim 15**, Ketcham teaches the method according to claim 13, further comprising: announcing the agreement using an announcement in a header field of the containers for the user data packet filled with control data packets (Column 3, lines 1 – 6).

**Regarding claim 16**, Ketcham teaches the method according to claim 13, further comprising: making the agreement by transmitting a request signal from the at least one of the subscribers to the master station (Column 3, lines 14 – 21).

**Regarding claim 17**, Ketcham teaches the method according to claim 13, further comprising: assigning to one of the subscribers by the master station a container for user data packets for transmission of control data packets after a predetermined number of requests for control data packets by the one of the subscribers (Column 9, lines 40 – 51; Column 3, lines 17 – 19; where the response packet tells the system to send aggregate packets).

**Regarding claim 18**, Ketcham teaches the method according to claim 13, further comprising: transmitting information regarding at least one of a type and a content of subsequent containers for user data packets filled with control data packets using at least a portion of a control data packet (Column 3, lines 1 – 6).

**Regarding claim 19**, Ketcham teaches the method according to claim 18, further comprising: storing an information element in the at least the part of the control data packet, the information element containing information about a number of occupied fields for control data packets within a subsequent container for user data packets (Column 3, lines 1 – 6).

**Regarding claim 20**, Ketcham teaches the method according to claim 13, further comprising: indicating information regarding a position of one of the containers for user data packets which is filled with control data packets within a block of user data packets using at least a portion of a control data packet (Column 3, lines 1 – 6).

**Regarding claim 21**, Ketcham teaches the method according to claim 13, further comprising: arranging each of the containers for user data packets which is filled with control data packets in a predetermined position within a respective block of cohesive user data packets (Column 7, lines 53 – 59, where the system is designed to identify packets which can be aggregated and sends them before packets which are too large to be aggregated).

**Regarding claim 22**, Ketcham teaches the method according to claim 21, wherein each of the containers for the user data packets which are filled with control data packets is arranged at a beginning of the respective block of cohesive user data packets (Column 7, lines 53 – 59, where the system is designed to identify packets which can be aggregated and sends them before packets which are too large to be aggregated).

**Regarding claim 23**, Ketcham teaches the method according to claim 13, further comprising: storing an information element in a preceding control data packet for each container for user data packets which is filled with control data packets (Column 3, lines 1 – 6, where in the aggregated data packet has a header for identifying the contents of the aggregated packets).

**Regarding claim 24**, Ketcham teaches a master station for a communications system having a frame-oriented transmission of data packets of differing capacity between the master station and subscribers, the master station allocating communications resources in a form of data packets for the subscribers, the subscribers requesting the communications resources from the master station (Abstract), the master station comprising:

a frame generator configured to predefine a transmission frame (Figures 5 – 7);

a multiplexer configured to insert control data packets and user data packets into the predefined transmission frame (Column 2, lines 61 – 67), a data capacity of the user data packets being a multiple of a data capacity of the control data packets (Column 2, lines 62 – 67, where there are packets and they can be multiply fit into a maximum packet size; Column 10, lines 1 – 4, an Nth multiple);

a selection unit configured to determine, based on an agreement between the master station and at least one of the subscribers, whether containers for user data packets within the transmission frame are filled with control data packets (Column 3, lines 14 – 21; lines 1 – 6); and

a de-multiplexer configured to separate user data packets and control data packets transmitted in a transmission frame and configured to send the separated user data packets and control data packets to the selection unit (Column 8, lines 19 – 22).

**Regarding claim 25**, Ketcham teaches a subscriber device for a communications system having frame-oriented transmission of data packets of differing capacity between a master station and subscribers, the master station allocating communications resources in a form of data packets for the subscribers, the subscribers requesting the communications resources from the master station (Abstract), the subscriber device comprising:

a de-multiplexer configured to separate user data packets and control data packets from a transmission frame transmitted by the master station and configured to send the separated user data packets and control data packets to an analyzer unit (Column 7, lines 53 – 57);

a multiplexer configured to insert subscriber-side control data packets and user data packets into a transmission frame predefined by the master station, the user data packets having a data capacity that is a multiple of a data capacity of the control data packets (Column 2, lines 62 – 67, where there are packets and they can be multiply fit into a maximum packet size; Column 10, lines 1 – 4, an Nth multiple); and

a selecting unit configured to determined whether containers for user data packets are filled with a plurality of control data packets within the transmission frame based on an agreement between the master station and the subscriber device (Column 3, lines 14 – 21; lines 1 – 6).

**(10) Response to Argument**

*With Regards to claims 13, 24 and 25, the appellant argues that the reference, Ketcham, does not suggest user data packets or filling a user packet with control packets.*

**In response,**

The claimed invention states “exchanging user data packets and control data packets” and “filling at least some containers for the user data packets each with a plurality of control data packets”.

The reference, Ketcham, teaches a system of sending various types of packets over a network. These packets include video, audio, data, and control packets as seen in Figure 4, elements 118, 120, 122, and 124. Video, Audio, and data packets can be considered user data packets, since they include payload data that is destined for a user. Also it is pretty clear that the control packets mentioned are equivalent to control packets as mentioned in the claimed invention. So Figure 4, shows that Ketcham’s network includes exchanging user data packets and control data packets over the network including the definition of both the user data packets and control data packets of the claimed invention in light of the specification.

Regarding the idea of filling containers with control data packets, Ketcham teaches that the network has a maximum packet size for a packet being sent over the network (Column 7, line 66 – Column 8, line 1). Figures 5 and 6 give an example of a normal packet being transmitted across the network. While being described as probe and response packets (Column 9, lines 7 – 58), it is clear that depending on the payload

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of the packet, what is shown in those figures is the normal format for all packets being sent over the network. This includes the user data packets (audio, video and data packets) and the control packets. In Figure 7, Ketcham shows an aggregate packet. On the far left side of this figure, it shows that the main structure and format of the aggregate packet is the same as the disclosed format of the response and probe packets, and in that respect the user data and control packets. Differing in the aggregate packet is what the payload is **filled** with. Elements 730 and 740 of Figure 7 show that the payload of the aggregate packet is filled with a plurality of single packets. So, according to Figure 7, the packet on the left is a container that is filled with a plurality of single packets (Column 10, lines 30 – 39). That container is the same format as any other packet of the network including the user data packets and is only restricted by the maximum packet size of the network.

The claimed invention teaches “filling at least some containers” with “a plurality of control data packets”. In order to meet this limitation the reference only needs to show that one of the aggregate packets can contain a plurality control packets some of the time. In figure 4, the network 110 shows that any of the packets (video, audio, data, or control) can be aggregates into one packet to be sent over the network. In Column 8, lines 5 – 27, the reference teaches that a router that receives a packet that can be aggregated, holds that packet for a timing interval, then sends all the other packets it has that are destined for the same final destination. Using this algorithm, it is clear the reference teaches that if the router receives a plurality of control packets that are being sent to the same final destination thus aggregating them together. Just as the router

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would hold and aggregate a plurality of audio, video, data, or any combination of those packets.

So the foregoing reasons, this reference teaches the limitations of the claimed invention "exchanging user data packets and control data packets" and "filling at least some containers for the user data packets each with a plurality of control data packets".

*With Regards to claims 13, 24 and 25, the appellant argues that the reference, Ketcham, does not teach or suggest "an agreement between the master station and at least one of the subscribers, the agreement stipulating which of the containers for the user data packets are filled with control data packets".*

**In response,**

The idea of "an agreement" is a very broad concept which the examiner must consider with the broadest possible interpretation. An agreement in terms of a data packet network can mean anything from an express negotiated decision between network nodes, to any type of mutual understanding that the nodes share.

In Ketcham, the router determines whether the nodes surrounding it support aggregated packets by the process shows in Column 5, lines 5 – 31. The first router broadcasts probe packets to its neighboring nodes (Column 5, lines 5 – 10). A second router which supports aggregate packets receives the probe packet and sends the first router a response packet (Column 5, lines 21 – 26). Based on the response packet, the first router determines that the second router can support aggregate packets. This process details a mutual understanding between the two routers that now aggregate

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packets are going to be received at the second router and send by the first router. That determination and mutual understanding is an agreement under a broad yet reasonable interpretation of the claimed limitation. The second router by sending the response to the probe packet agreed that it can support aggregate packets.

Regarding the idea of the agreement "stipulating which containers for the user data packets are filled with control data packets," this idea is inherent with the idea of the second router agreeing that it supports aggregated packets. By being able to support packets, the second router agreed that it can receive packets that contain aggregated control data packets, plus other types of user data packets. So in the network, which of the packets can contain subframes of control data packets? Well it is clear that aggregated packets are the only packets which can contain a plurality of packets and a plurality of control packets. So an agreement to support the transmission of these aggregated packets is an agreement and a stipulation that these aggregate packets are going to contain a plurality of single packets combined together, thus a container filed with a plurality of control data packets.

*With Regards to claims 13, 24 and 25, the appellant argues that the reference, Ketcham, does not teach or suggest "the containers for the user data packets being combined in a subframe, an external format of the subframe being adapted to a format of the user data packets".*

**In response,**

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As noted above, Figure 7, of the reference Ketcham, shows the format of the aggregated packets. On the far left, there is detailed the external format of all the data packets sent throughout the network. The only difference between the packet in Figure 7, than those of Figure 5 and 6 is within the payload. The payload includes elements 730 and 740. Element 730 shows the subframe of the data packets. These subframes contains the entire payload of the previous packet and all of the header information that is needed to restore these packets later when the are deaggregated.

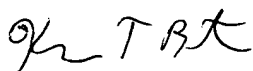
**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,


Kevin Bates




Conferees:

Lynne Browne

Saleh Najjar



**SALEH NAJJAR**  
SUPERVISORY PATENT EXAMINER



**Lynne H. Browne**  
Appeal Specialist, TQAS  
Technology Center 2100